

CLAIMS

What is claimed is:

1. A surveillance system comprising:

a first sensor apparatus adapted to transmit toward and receive from a subject in a subject position, first electromagnetic radiation in a frequency range of about 100 MHz to about 2 THz, from positions spaced from the subject position, the subject including at least a portion of a person in a subject position and detectable objects carried by the person, the first sensor apparatus producing from the received radiation, a first image signal representative of a first image of at least a portion of the subject;

a second sensor apparatus different than the first sensor apparatus, and adapted to detect a given characteristic of an object potentially carried by a person in the subject position; and

a controller adapted to control operation of the first and second sensor apparatus, and to produce, from the image signal, image data representative of the image of the at least a portion of the subject, and relational information about whether the person is carrying an object having the given characteristic.

2. The system of claim 1, in which the controller is further adapted to determine whether the image includes object-image characteristics corresponding to an object on the person, and to operate the second sensor apparatus to produce object information about whether the object has the given characteristic.

3. The system of claim 2, in which the second sensor apparatus is adapted to detect the given characteristic in different regions of the subject.

4. The system of claim 3, in which the second sensor apparatus includes a first moving mechanism adapted to move the second sensor apparatus relative to the subject position.

5. The system of claim 3, in which the controller is adapted to associate each detection of the given characteristic with a corresponding region of the subject and to relate each portion of the image that includes object-image characteristics, with one of the regions of the subject.

6. The system of claim 5, in which the controller is adapted to determine whether each region of the image that includes object-image characteristics is associated with the detection of the given characteristic.

7. The system of claim 3, in which the controller is adapted to detect portions of the image having object-image characteristics, and then to control the operation of the second sensor apparatus to detect the given characteristic in regions corresponding to the portions of the image having object-image characteristics.

8. The system of claim 1, further comprising a first moving mechanism adapted to move the first and second sensor apparatus relative to the subject position.

9. The system of claim 8, further comprising a second moving mechanism adapted to move one of the first and second sensor apparatus relative to the other.

10. A method of surveilling a subject in a subject position, the subject including a person and objects carried by the person, comprising:

transmitting toward a subject in a subject position, first electromagnetic radiation in a frequency range of about 100 MHz to about 2 THz, from positions spaced from the subject position, the subject including at least a portion of a person in a subject position and detectable objects carried by the person;

receiving from the subject reflected transmitted radiation;

producing from the received radiation, a first image signal representative of a first image of at least a portion of the subject;

detecting a given characteristic of an object potentially carried by a person in the subject position, not based on the first image signal; and

producing, from the image signal and the detected characteristic, image data representative of the image of the at least a portion of the subject, and relational information about whether the person is carrying an object having the given characteristic.

11. The method of claim 10, further comprising determining whether the image includes object-image characteristics corresponding to an object on the person, and in which producing information about whether the person is carrying an object having the given characteristic includes producing information about whether an object on the person has the given characteristic.

12. The method of claim 11, in which detecting a given characteristic includes detecting the given characteristic in different regions of the subject.

13. The method of claim 12, further comprising associating each detection of the given characteristic with a corresponding region of the subject, and relating each portion of the image that includes object-image characteristics with a corresponding region of the subject.

14. The method of claim 13, further comprising determining whether each region of the image that includes object-image characteristics is associated with the detection of the given characteristic.

15. The method of claim 12, further comprising detecting portions of the image having object-image characteristics, and then detecting a given characteristic of the subject in regions corresponding to the portions of the image having object-image characteristics.

16. The method of claim 10, wherein detecting a given characteristic includes receiving the reflected radiation for different regions of the subject while detecting a given characteristic for the same regions of the subject.